

RETRO-POSITION OF THE UTERUS.

BY GEORGE W. JARMAN, M.D.,
OF NEW YORK.

ALTHOUGH the writer uses the word retro-position in the title of this paper, he is convinced that it is not the term which most correctly designates the condition under consideration.

Nearly all authors who describe this displacement of the uterus use the term retro-position to express not only this, but another malposition, namely, retroversion, which has nothing in common with the one under consideration.

It is needless to say that this usage of a term to describe two very different positions of the uterus can result only in confusion. The writer would use the word retrocession as expressing more perfectly the real position than retro-position. Retrocession carries with it no idea of any turning of the uterus around a transverse axis. It simply means that the uterus has receded toward the sacrum.

Schultze, Winkel, Hart and Barbour, and Pozzi, all speak of this malposition, yet in so meagre a manner as to leave one to suppose that it is not only very infrequent, but that few symptoms accompany it. From an experience extending over five years in one of the largest gynecological clinics in this city, the writer has found that retrocession of the uterus existed in the proportion of one to eighteen, where malposition of the uterus was diagnosed, and that symptoms so marked depended upon this position that treatment was desired.

The writer bases the deductions in this paper upon his observation of sixty-two patients with retrocession.

Inasmuch as the utero-sacral ligaments and the peritoneal surfaces of Douglas's pouch are so important in the production of this displacement, it will be necessary to make slight reference to their anatomy.

"The utero-sacral ligaments are peritoneal folds, two in number, inclosing connective tissue and unstriped muscular fibre, passing from the lower lateral part of the body of the uterus outward and backward toward the second sacral vertebræ" (Hart and Barbour). They form the lateral boundaries of the Pouch of Douglas. The sacral attachments of these ligaments is on a higher plane than their uterine ends, and if they become shortened the uterus is not only drawn backward, but is also lifted upward. The lymphatics of the vagina, cervix, and uterus are very numerous and complex, and it seems almost impossible, from an anatomical standpoint only, to determine their distribution. According to Sappey, the lymphatics of the upper three-fourths of the vagina and cervix enter the hypogastric glands which lie subperitoneally

in the space between the external and internal iliac vessels. Le Bec, however, holds that the lymphatics from these structures pass out underneath the broad ligaments to the obturator gland of Guérin.

Recognizing how very rich the pelvic organs are in lymphatics, and bringing to bear the assistance of clinical observation, it would seem that it is not paradoxical to state that both authorities are right. We all see instances of inflammatory exudate following laceration of the cervix with septic infection, where the extension is sometimes in the broad ligament, and again retrouterine. This indeed seems to offer the true explanation of the inflammation which is found to exist in the utero-sacral ligaments. The cervical mucous membrane becomes inflamed,

FIG. 1.

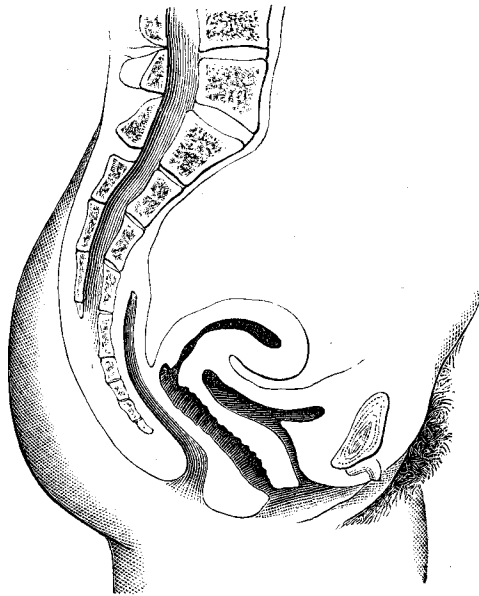


Diagram of vertical mesial section of female pelvis, showing normal distance between uterus and sacrum. Bladder empty.

and septic material travels through the lymphatics which lie underneath the peritoneal covering of these ligaments, and they in turn become inflamed. This process may go on so slowly that the patient will complain only of backache, and, attributing it merely to overexertion or to some other possible cause, may not even seek treatment. It is only after secondary contraction, which follows this new infiltration of connective tissue, takes place that the real condition of the retrocession exists. (See Figs. 1 and 2, showing the normal and retroceded uterus.)

Should the patient possess an unusually long cervix, the condition of pathological antelexion will be induced by the contraction of these

ligaments. This is perfectly easy of explanation when we consider that the uterus is constantly subjected to intra-abdominal pressure which tends to force the fundus of the normally placed organ forward toward the pubes, while the contractile power of the vagina tends to force the cervix in its own axis, which is nearly at right angles to that of the body of the uterus. Hence, should the cervix be abnormally long, the leverage will be increased so that it must assume the axis of the vagina.

It is the writer's belief that it is simply because operators have overlooked this retrocession and have given their entire attention to one of its frequent effects, namely, antelexion, that such poor results have

FIG. 2.

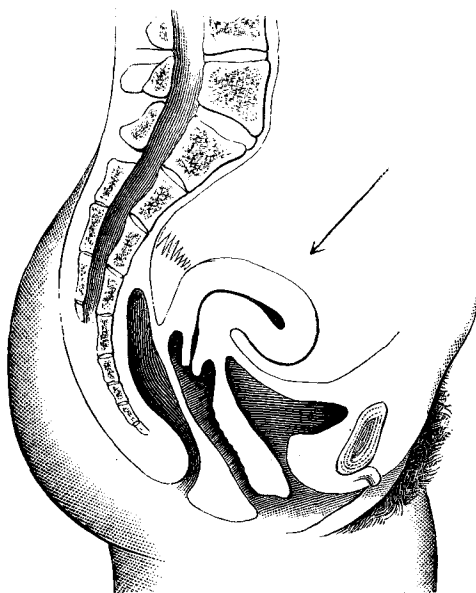


Diagram of vertical mesial section of female pelvis, showing contracted utero-sacral ligament, with uterus in the position of retrocession.

been obtained from the treatment of so-called cases of antelexion. The recent operation devised by Dr. E. C. Dudley in reality shortens the intravaginal portion of the cervix, hence decreases the leverage, also affords free drainage for the endocervicitis, and it seems quite possible that this would explain, at least in some of the cases, the marked relief obtained. On the other hand, viewing the subject from the standpoint that the retrocession is so frequently the cause of the antelexion it is not surprising that failure to relieve the symptoms so often follows even extreme divulsion and tamponade. It has been said above that the uterus is not only drawn backward by reason of the shortened utero-

sacral ligaments, but that it is also lifted upward, nearer to the brim of the pelvis, inasmuch as the sacral attachment is on a higher plane than the uterine.

This mechanical elevation of the uterus deprives it of the natural support offered by the floor of the pelvis. In this way these already inflamed ligaments are forced to sustain more weight than when the uterus is in its normal position. The utero-sacral ligaments receive their nerve supply, in common with the uterus, through the sympathetic system. Branches from the hypogastric plexus, which lies between the common iliac arteries, reinforced by branches from the lumbar and sacral ganglia and sacral nerves, form the inferior hypogastric plexuses, and from these filaments pass to the utero-sacral ligaments.

Pain in the sacral and lumbar regions is the most constant symptom associated with retrocession. This pain is often described by patients as being similar to that which they suppose they would experience if the back was broken, their expression being a "back-breaking pain." Standing, or in fact whenever the patient assumes the upright posture, increases this pain. It would be difficult to understand why this should not be the case when we remember the increased weight which the ligaments are called upon to support. Women who are compelled to do their own work and lift heavy weights will suffer more than those who can assume the recumbent posture more frequently. Again, any constriction around the waist of patients with this malposition will intensify this pain by increasing the intra-abdominal pressure. Sterility existed in nearly all the patients who came under the writer's observation. That this condition is due to the position of the uterus is not claimed, but rather that the most frequent cause of the inflammatory process in the utero-sacral ligaments, namely, endocervicitis, seems the most plausible explanation of the sterility.

Vesical irritation is another symptom which accompanies this displacement. That this should be the case can readily be understood, if the changes in position of the normal uterus depending upon the contents of the bladder be borne in mind.

When the uterus has receded from its midway position between pubes and sacrum, it must of necessity render its anterior attachment more tense.

The vagina will be found unusually deep and both anterior and posterior walls overstretched.

If the cervix uteri is long, it will be found in the axis of the vagina and forming an acute angle with the body of the uterus. Any attempt to move the uterus will cause the patient pain, which she refers to the back. Making traction on the cervix with a tenaculum, with the examining finger in the posterior fornix, will reveal the fact that the uterus has lost its normal mobility, and at the same time the tense utero-sacral

ligaments can easily be made out. They will appear as two diverging cords attached to the posterior surface of the lower uterine segment, passing upward, backward, and outward. The uterus is frequently found to be in marked anteversion, caused by the round ligaments drawing the fundus forward. It is almost impossible to mistake this condition for any other.

Any inflammatory exudate in the cul-de-sac of Douglas may simulate retrocession, but the uterus will be more firmly fixed and will not be so near the sacrum. Spasmodic contraction of the ligaments of the uterus, a condition not infrequently observed in hyperaesthetic patients, might possibly be mistaken for retrocession. An examination under chloroform would reveal the true condition.

Inasmuch as the condition which produces retrocession of the uterus is chronic, the non-operative treatment must be prolonged, if satisfactory results are to be obtained.

The cervical canal should be examined and the cervical endometritis relieved. Thorough curettage under local anæsthesia offers the best means for rapidly disposing of this condition. If the cervix is abnormally long it should be amputated. Lifting the uterus up, so that the strain on the utero-sacral ligaments is lessened, will relieve the patient's symptoms to a great extent. This may be done either with the tampon suitably medicated or else with the retroversion pessary. It is not always possible to use the latter until after the tenderness of these ligaments has been reduced. The writer has not seen any good results from hot douches in the treatment of these cases. Chloral hydrate solution in glycerin, in proportion of two parts to twenty, applied by means of the tampon, having a distinct analgesic effect, has relieved the pain of which these patients complain more certainly than any other local treatment.

Massage is one of the surest methods of curing the patient of retrocession. I do not mean in this instance the ordinary pelvic massage, but the actual stretching of the contracted ligaments. It will often be necessary to restrict treatment to less harsh methods until the local tenderness is somewhat abated. As soon as the patient will bear it, and selecting a time at least four days distant from the menstrual period, it can be employed. The vagina, cervix, and cervical canal should be rendered as aseptic as possible, and with a double tenaculum the anterior lip of the cervix can be grasped. This procedure in reality produces very little pain on account of the insensitiveness of the cervix. Making traction on the tenaculum, with the examining finger of the other hand in the posterior vaginal fornix, will put these shortened ligaments on even greater tension and permit the operator to press his finger against them both transverse and laterally. The amount of force which can be exercised will be limited by the degree of pain

which is produced, it being advisable to stop short of severe pain. Gentleness and persistence will accomplish far more than harsh handling. It is needless to say that in this, as in other forms of pelvic massage, the operator must be careful not to let his hand come in contact with the vestibule or clitoris.

Although it is not possible for the writer to prove the statement, yet clinical experience has demonstrated to his own mind that the red iodide of mercury, administered internally, has been of marked benefit to patients with retrocession. The only explanation possible is that it stimulates the lymphatic system and causes it to take up the products of the inflammatory process. At any rate he has made use of it in quite a number of cases, and has satisfied himself that it has been at least an adjuvant in the treatment of retrocession.

The bowels should be kept active. Electricity has decided pain-relieving power in these cases and should not be overlooked. Where, from lack of time or the impossibility of securing the regular services of a physician, local treatment becomes impossible, or where such treatment fails to bring about the desired relief, operative methods will be advisable.

Since the revival of the vaginal operation for the relief of abnormal conditions of the pelvic organs, it has been demonstrated that these ligaments can be cut with perfect safety.

In performing vaginal hysterectomy, as soon as these ligaments are divided, the increased mobility of the uterus is marked. The same thing is found when doing this operation by the abdominal method; the uterus can often be raised into the abdominal incision after its posterior attachments have been liberated, whereas previous to this procedure the organ may have appeared almost fixed.

There can be almost no danger in the operation for the division of the utero-sacral ligaments through the vaginal route. Under strict antiseptic precautions a transverse incision, one inch in extent, through the posterior fornix, can be made and Douglas's pouch opened. Traction on the cervix will render the ligaments tense and their location simple. With the guidance of the index finger their anterior attachment can be cut with blunt-pointed scissors. Hemorrhage from this source would be slight and under perfect control. The traction of the vaginal walls is sufficient to hold the uterus forward during the process of recovery. The incision through the fornix could be closed with sutures, as is done following vaginal ovariectomy. The writer had an opportunity of witnessing a very recently similar procedure in the hands of Prof. Henry C. Coe. In this case there was a small fibroid immediately behind the uterus, apparently attached to one of the utero-sacral ligaments. During the process of its removal it was necessary to cut these ligaments. As soon as they were divided the uterus sprang forward to its normal relation-

ship with the pubes. It had been in marked retrocession. The case demonstrated the ease of access to these ligaments through the posterior vaginal vault.

The writer would draw the following conclusions:

1. That retrocession has been too often overlooked in the explanation of pelvic pain.
2. That the condition of the utero-sacral ligaments must be taken into consideration in the treatment of ante flexion.
3. That this condition can easily be relieved by operative measures, if local treatment does not succeed.

AN INVESTIGATION INTO THE SO-CALLED LYMPHOID NODULES OF THE LIVER IN ABDOMINAL TYPHUS.

BY WALTER REED, M.D.,
SURGEON U. S. ARMY.

(From the Pathological Laboratory of the Johns Hopkins University.)

THE pathological changes met with in the liver of those who have died of typhus abdominalis have, for a long time, attracted the attention of investigators. Perhaps to Friedreich¹ should be given the credit for the discovery of certain circumscribed nodular formations which he described as occurring in the liver of a girl, twenty-one years of age, who had died of typhoid fever. He found, in the neighborhood of the coarser bands of stroma, collections of cells which could not be seen with the naked eye, but which, viewed microscopically, consisted of round and partly irregular cells imbedded in the connective tissue of the organ. While this description is not complete, since Friedreich only saw these collections of cells in the interstitial connective tissue, yet it is, we think, sufficiently accurate to justify the belief that he saw what E. Wagner,² three years later, so minutely described. The latter's classical description of the hepatic lesions seen by him in five patients who had died of typhus abdominalis has scarcely been added to up to the present time. As regards his first case, Wagner describes the liver as of normal size and anæmic in appearance, somewhat softened, and with the outlines of the lobules obscure. He saw over all portions of the organ quite numerous, small areas, which were just on the limit of visibility, of a gray color, and fairly solid in character. This refers to the naked-eye appearance. Upon microscopical examination these spots were found to be round, oblong, sometimes irregular, serrated and

¹ Ein neuer Fall von Leukämie, Virchow's Archiv, 1857, Band xii. S. 53.

² Beiträge zur pathologischen Anatomie der Leber bei Abdominal Typhus, Archiv d. Heilkunde, 1860, Band i. S. 322.